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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/454,755	12/06/1999	SACHIKO NISHIURA	4432-19	4202

7590 01/30/2003

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EXAMINER

YANG, RYAN R

ART UNIT	PAPER NUMBER
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2672

DATE MAILED: 01/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/454,755

Applicant(s)

NISHIURA, SACHIKO

Examiner

Ryan R Yang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-11,13-20 and 22-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-11,13-20 and 22-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 06 December 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION
Continued Prosecution Application

1. The request filed on 12/10/2002 for a Continued Examination (RCE) under 37 CFR 1.114 is acceptable. An action on the RCE follows.

2. This action is responsive to communications: Amendment, filed on 12/10/2002.

This action is non-final.

2. Claims 1-2, 4-11, 13-20 and 22-27 are pending in this application. Claims 1, 10 and 19 are independent claims. In the Amendment, filed on 12/10/2002, claims 1, 10, and 19 were amended.

This application claims foreign priority dated 12/9/1998.

3. The present title of the invention is "Apparatus and Method for Converting an Object Display Description Document" as filed originally.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1-2, 6-11, 15-20 and 24-27 are rejected under 35 U.S.C. 103(a) as unpatentable over Politis (6,191,797) in view of Apparao et al. (6,069,633).

6. As per claim 1, Politis discloses an apparatus for converting an original set of source objects by reducing the number of objects required to display a description document, said apparatus comprising a generating means for generating a set of new objects, from said original set of source objects in the document, a number of new objects in said set of new objects being fewer than a number of objects in said original set of source objects, said fewer objects obtaining a display image equivalent to the display of an image obtained from said original set of source objects (Figure 1, where image A and B are combined in various way into a single image; an image is

represented by a node as in Figure 4 or 5. The node is modified as a result of combining images, column 2, line 34-62).

It is noted that Politis does not explicitly disclose "generating means generates said new objects from a transparent or translucent source object and other source objects located at a layer lower than a layer including said transparent or translucent source object and spatially overlapping said transparent or translucent source object", however, this is known in the art as taught by Apparao et al., hereinafter Apparao. Apparao discloses a method of minimize drawing of a display area by using a compositor in which "When a transparent sprite is found, the sprite engine searches the remaining sprites in a bottom-up manner and draws the sprites with a Z position below the transparent sprite".

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Apparao into Politis in order to "minimizing the redrawing of unnecessary portions of underlying ...", column 4, line 11-12.

7. As per claim 2, Politis and Apparao demonstrated all the elements as applied in the rejection of independent claim 1, supra, and Politis further discloses said generating means deletes source objects hidden spatially behind another source object which is not transparent nor translucent (Figure 1, where portion of B is deleted by overlapped part of A in A OVER B).

8. As per claim 6, Politis and Apparao demonstrated all the elements as applied in the rejection of independent claim 1, supra, and Politis further discloses a means for storing said set of new objects to a storage medium (Figure 12 1206).

9. As per claim 7, Politis and Apparao demonstrated all the elements as applied in the rejection of independent claim 1, supra, and Politis further discloses a means for

selectively storing said set of source objects or said set of new objects to a storage medium (Figure 12 1206).

10. As per claim 8, Politis and Apparao demonstrated all the elements as applied in the rejection of independent claim 1, supra, and Politis further discloses a means for displaying said set of new objects, wherein said apparatus is used as a browser (Figure 12 1216 where the quadtree (a region or a portion of an image) is stored).

11. As per claim 9, Politis and Apparao demonstrated all the elements as applied in the rejection of independent claim 1, supra, and Politis further discloses a means for selectively displaying said set of source objects or said set of new objects, wherein said apparatus is used as a browser (Figure 12 1216 where the quadtree is stored).

12. As per claims 10-11 and 15-18, since Politis' and Apparao's disclosure are for a method, apparatus and system (see Abstract of Politis) for optimizing an expressing tree, the claims are similarly rejected as claims 1-3 and 6-9, respectively, by Politis and Apparao.

13. As per claims 19-20 and 24-27, since Politis' and Apparao's disclosure are used in computer graphics, it is obvious the method can be in the form of computer program, therefore is similarly rejected as claims 1-3 and 6-9, respectively, by Politis and Apparao.

14. Claims 1-2, 4-11, 13-20 and 22-27 are rejected under 35 U.S.C. 103(a) as unpatentable over Berend et al. (5,692,117) in view of Apparao et al. (6,069,633).

As per claim 1, Berend et al., hereinafter Berend, discloses an apparatus for converting an original set of source objects by reducing the number of objects required to display description document, said apparatus comprising a generating means for

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generating a set of new objects, from said original set of source objects in the document, a number of new objects in said set of new objects being fewer than a number of objects in said original set of source objects, said fewer objects obtaining a display image equivalent to the display of an image obtained from said original set of source objects (Figure 62a and 62b where 62a shows two overlapping objects and 62b shows combined object has fewer source objects than 62a).

It is noted that Berend does not explicitly disclose "generating means generates said new objects from a transparent or translucent source object and other source objects located at a layer lower than a layer including said transparent or translucent source object and spatially overlapping said transparent or translucent source object", however, this is known in the art as taught by Apparao et al., hereinafter Apparao. Apparao discloses a method of minimize drawing of a display area by using a compositor in which "When a transparent sprite is found, the sprite engine searches the remaining sprites in a bottom-up manner and draws the sprites with a Z position below the transparent sprite".

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Apparao into Berend in order to "minimizing the redrawing of unnecessary portions of underlying ...", column 4, line 11-12.

15. As per claim 2, Berend and Apparao demonstrated all the elements as applied in the rejection of independent claim 1, supra, and Berend further discloses said generating means deletes source objects hidden spatially behind another source object which is not transparent nor translucent (Figure 62a and 62b, "to cause the overlapping portions of the outline curves not to be displayed ... so that the overlapping sections of each boundary curve are rendered invisible when displayed", column 51, line 21-30).

16. As per claim 4, Berend and Apparao demonstrated all the elements as applied in the rejection of dependent claim 1, supra, and Berend further discloses generation of said new object from said transparent or translucent source object and said other

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source objects is performed for a time range in which said transparent or translucent source object spatially overlaps said other source objects ("Another type of amendment involves moving a frame or a series of frames in time ... and to generate new intervening frames (or delete old frames) as required", column 20, line 39-47).

17. As per claim 5, Berend and Apparao demonstrated all the elements as applied in the rejection of independent claim 1, supra, and Berend further discloses said generating means deletes a source object when a display time for said source object is out of a display time range for said set of source objects ("Another type of amendment involves moving a frame or a series of frames in time ... and to generate new intervening frames (or delete old frames) as required", column 20, line 39-47).

18. As per claim 6, Berend and Apparao demonstrated all the elements as applied in the rejection of independent claim 1, supra, and Berend further discloses a means for storing said set of new objects to a storage medium (Figure 3 120).

19. As per claim 7, Berend and Apparao demonstrated all the elements as applied in the rejection of independent claim 1, supra, and Berend further discloses a means for selectively storing said set of source objects or said set of new objects to a storage medium (Figure 3 120).

20. As per claim 8, Berend and Apparao demonstrated all the elements as applied in the rejection of independent claim 1, supra, and Berend further discloses a means for displaying said set of new objects, wherein said apparatus is used as a browser (Figure 5, where the animator workstations 110a ... 110c can retrieve data from file server 180).

21. As per claim 9, Berend and Apparao demonstrated all the elements as applied in the rejection of independent claim 1, supra, and Berend further discloses a means for selectively displaying said set of source objects or said set of new objects, wherein said apparatus is used as a browser (Figure 5, where the animator workstations 110a ... 110c can selectively retrieve data from file server 180).

22. As per claims 10-11 and 13-18, since Berend's and Apparao's disclosure are for a method and apparatus for producing animated drawing, the claims are similarly rejected as claims 1-2 and 4-9, respectively, by Berend and Apparao.

23. As per claims 19-20 and 22-27, since Berend's and Apparao's disclosure are used in computer animation, it is obvious the method can be in the form of computer program, therefore is similarly rejected as claims 1-2 and 4-9, respectively, by Berend and Apparao.

Response to Arguments

24. Applicant's arguments filed 12/10/2002 have been fully considered but they are not persuasive.

As per claims 1, 10 and 19, Applicant argues Apparao does not teach generating a set of new objects which are fewer than the said original set of source objects.

However, the Examiner relies on the Politis (6,191,797) teaching on reducing the number of objects. Politis teaches:

a method of optimising an expression tree for compositing an image, the expression tree comprising a node being either a graphical element or a graphical operator and having a region of the image represented by the node, the method comprising the steps of:

traversing the expression tree node by node and at each current node comprising a graphical operator applying the sub-steps of:

- (i) receiving a first region representation from a parent node;
- (ii) passing to a first operand of the graphical operator a modified first region representation in accordance with a first predetermined modification rule for the operator;

- (iii) returning to the graphical operator a second region representation of regions obscured by a sub-tree associated with the first operand;
 - (iv) passing to a second operand of the graphical operator a modified second region representation in accordance with a second predetermined modification rule for the operator;
 - (v) returning to the graphical operator a third region representation of regions obscured by a sub-tree associated with the second operand; and
 - (vi) determining, in accordance with a set rule for the graphical operator, a final region representation to be returned to the parent node . (column 2, line 36-62)
- Thus, by modifying the nodes the objects are modified and reduced.

Conclusion

25. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Inquiries

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Ryan Yang** whose telephone number is **(703) 308-6133**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Michael Razavi**, can be reached at **(703) 305-4713**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

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Washington, D.C. 20231

or faxed to:

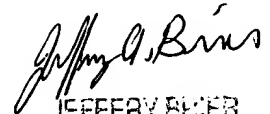
(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 305-47000377.

Ryan Yang

January 24, 2003


JEFFERY BINER
PRIMARY EXAMINER